

IN THE SPECIFICATION

Please amend the specification as follows:

Please delete the first paragraph on page 1.

Insert the following paragraph on a new line after the title:

This application is a § 371 application of PCT/EP03/009845, which claims priority from DE 10241500.5.

First paragraph, following the title:

BACKGROUND

The invention relates to a method for operating a nitrogen oxide storage-type catalytic converter of an internal combustion engine, particularly of a motor vehicle ~~as claimed in the preamble of claim 1.~~

Insert the following on a new line before the third full paragraph of page 5:

SUMMARY OF THE INVENTION

Delete the final paragraph of page 5.

Page 6, first paragraph:

~~As claimed in claim 1, to~~ To establish the instant of switching from the storage phase to the discharge phase, the relative nitrogen oxide slip is determined such that the nitrogen oxide mass flow upstream of the nitrogen oxide storage catalytic converter and the nitrogen oxide mass flow downstream of the nitrogen oxide storage catalytic converter are each integrated over the respective time interval of the lean phase and the quotient of the integral values are brought into a relative relationship with a predeterminable degree of conversion of the nitrogen oxide which can be derived from the exhaust gas limit value, such that when this predetermined switching condition is present, switching from the storage phase to the discharge phase is carried out at the switching instant which has been optimized with respect to fuel consumption and storage potential.

Page 7, last paragraph through page 9, first full paragraph:

According to an especially preferred process implementation, ~~as claimed in claim 2~~, it is provided that the relative slip is the quotient of the integral over the nitrogen oxide mass flow downstream of the nitrogen oxide catalytic converter and the integral over the nitrogen oxide mass flow upstream of the nitrogen oxide storage catalytic converter. This quotient for determining the switching condition is set equal to a predeterminable switching threshold value K which is attributed to the predeterminable degree of nitrogen oxide conversion, so that when this switching condition is satisfied, switching from the storage phase at the end of the storage time which has been determined in this way to the discharge phase takes place. For example, this switching threshold value K ~~as claimed in claim 3~~ satisfies the following equation:

$$K = 1 - \text{predetermined conversion rate of nitrogen oxide}$$

The predetermined nitrogen oxide conversion rate is thus always less than 1, but is preferably at least 0.8, at most preferably with respect to the Euro-IV exhaust gas limit value standard approximately 0.95.

~~As claimed in claim 4, the~~ The nitrogen oxide mass flow is modeled upstream of the nitrogen oxide storage catalytic converter. As a rule however this nitrogen oxide mass flow could also be measured upstream of the nitrogen oxide storage catalytic converter, for example by means of a nitrogen oxide sensor. This nitrogen oxide sensor as claimed in claim 5 is however advantageously provided downstream of the nitrogen oxide storage catalytic converter in order to measure the nitrogen oxide mass flow downstream of the nitrogen oxide storage catalytic converter. Especially for the times in which the nitrogen oxide sensor is not ready for operation, the nitrogen oxide mass flow downstream of the nitrogen oxide storage catalytic converter can also be modeled. Modeling is defined here as the raw nitrogen oxide mass flow upstream of the nitrogen oxide storage catalytic converter or the nitrogen oxide mass flow downstream of the nitrogen oxide storage catalytic converter being taken from the nitrogen oxide storage model or a nitrogen oxide raw emission model. In the models for example the raw nitrogen oxide mass flow is modeled from the parameters which describe the operating point of the internal combustion engine, for example, the supplied fuel mass or air mass, the torque, etc. Likewise, the modeled raw nitrogen oxide mass flow can also be taken from a characteristic or a family of characteristics.

According to one especially preferred embodiment ~~as claimed in claim 6~~, a nitrogen oxide mass flow signal which has been measured by means of the nitrogen oxide sensor downstream of the nitrogen oxide storage catalytic converter is supplied to a control device in which the nitrogen oxide mass flow which has been measured downstream of the nitrogen oxide storage catalytic converter is integrated over time, and the integral value which has been determined in this way together with the integral value of the nitrogen oxide mass flow upstream of the nitrogen oxide storage catalytic converter is brought into a relation with the predeterminable degree of conversion of the nitrogen oxide to determine the switching instant. When the switching condition is present, then the control device delivers a control signal to carry out switching of the nitrogen oxide storage catalytic converter from the storage phase to the discharge phase. The process implementation as claimed in the invention here thus also results in an especially favorable component engineering cost, since no additional components are necessary, but the components which are already present can be used for the operating mode as claimed in the invention.

~~The control device is claimed separately as claimed in claim 7.~~ The advantages of the control device which accrue hereby have already been detailed in conjunction with the process implementation so that they are not further detailed here.

BRIEF DESCRIPTION OF THE DRAWINGS

Please insert the following on a new line following the first paragraph of page 10:

DETAILED DESCRIPTION OF THE INVENTION